

Silicon PNP Power Transistors

2SB705/705A/705B

DESCRIPTION

- With MT-200 package
- Complement to type 2SD745/745A/745B

APPLICATIONS

- Audio frequency power amplifier
- Suitable for output stages of 60~120W audio amplifiers and voltage regulators

PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Collector;connected to mounting base
3	Emitter

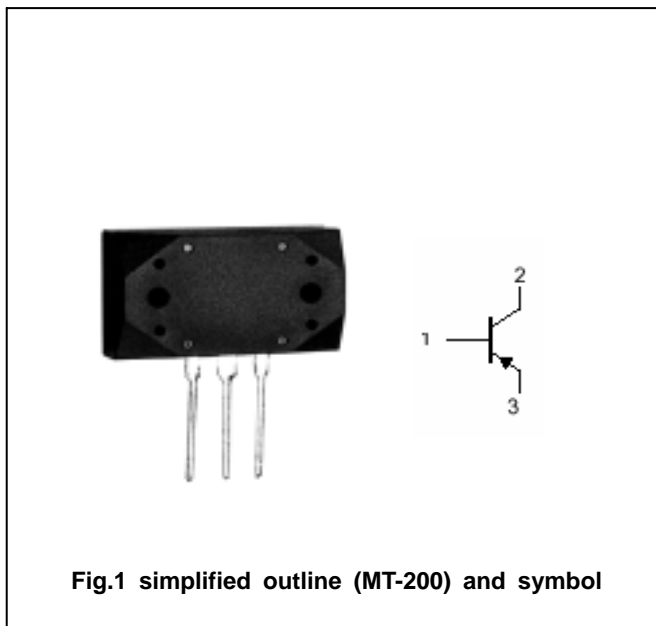


Fig.1 simplified outline (MT-200) and symbol

Absolute maximum ratings (Ta=25)

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V _{CBO}	Collector-base voltage	2SB705	-140	V
		2SB705A	-150	
		2SB705B	-160	
V _{CEO}	Collector-emitter voltage	2SB705	-140	V
		2SB705A	-150	
		2SB705B	-160	
V _{EBO}	Emitter-base voltage	Open collector	-5	V
I _C	Collector current		-10	A
I _{CM}	Collector current-peak		-15	A
P _T	Total power dissipation	T _C =25	120	W
T _j	Junction temperature		150	
T _{stg}	Storage temperature		-55~150	

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CHARACTERISTICS

T_j=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-emitter breakdown voltage	2SB705	-140			V
		2SB705A	-150			
		2SB705B	-160			
V _{CEsat}	Collector-emitter saturation voltage	I _C =-5A; I _B =-0.5 A			-1.5	V
V _{BEsat}	Base-emitter saturation voltage	I _C =-5A; I _B =-0.5 A			-2.0	V
I _{CBO}	Collector cut-off current	V _{CB} =-140V; I _E =0			-50	μA
I _{EBO}	Emitter cut-off current	V _{EB} =-3V; I _C =0			-50	μA
h _{FE-1}	DC current gain	I _C =-50mA; V _{CE} =-5V	20			
h _{FE-2}	DC current gain	I _C =-2A; V _{CE} =-5V	40		200	
f _T	Transition frequency	I _C =-0.2A; V _{CE} =-5V		17		MHz
C _{OB}	Output capacitance	I _E =0; V _{CB} =-10V; f=1MHz		430		pF

◆ h_{FE-2} classifications

S	R	Q
40-80	60-120	100-200

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PACKAGE OUTLINE

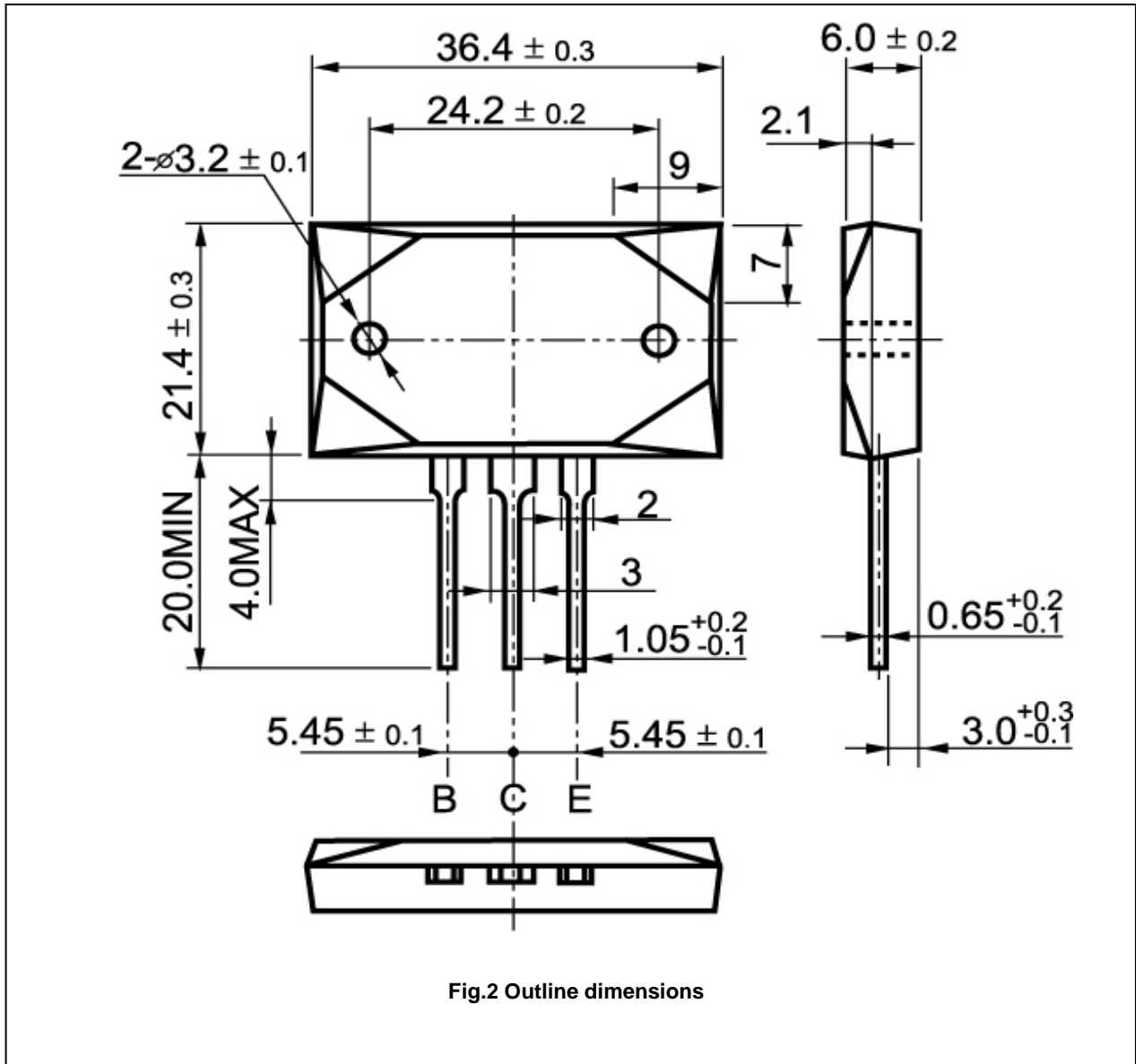


Fig.2 Outline dimensions